

Remarks

Claim 4 is canceled. Applicant requests the Patent Office to reconsider its rejections and allow pending claims based on the arguments provided below.

Claims 1-3 stand finally rejected under 35 USC 103(a) over McFarland in view of Mann in view of Sandstrom and further in view of Weinberg. This contention is respectfully traversed because the Final Office Action fails to provide a prima facie showing of obviousness and because the claims are distinctly different from the contended combination of the cited references.

With respect to Claim 1, the Final Office Action cites description in [0090] in McFarland to show the following features in Claim 1: "placing a single template located between the microarray and an optical detector to include holes arranged to selectively transmit the DFWM signal from the microarray to the optical detector and to block pump light and probe light in the DFWM system from entering the optical detector; measuring an output of the optical detector to represent the DFWM signal."

The technical information in [0090] in McFarland, however, has nothing to do with DFWM in a microarray. In contrast, [0090] in McFarland is related to FIG. 14 for a system to characterize the relative radiance, luminance, and chromaticity of an array of materials. Referring to FIG. 14, the excitation source 1403 produces a beam to illuminate the combinatorial library 1401 by a beam splitter 1405. Light from the library 1401 caused by the illumination beam from the source 1404 passes through the beam splitter 1405 to transmit through a spectral filter 1411 to reach the array detector 1407. Nothing in [0090] in McFarland and FIG. 14 suggests anything related to Claim 1. There is no disclosure or even a suggestion of "placing a single template located between the microarray and an optical detector

to include holes arranged to selectively transmit the DFWM signal from the microarray to the optical detector and to block pump light and probe light in the DFWM system from entering the optical detector" and "measuring an output of the optical detector to represent the DFWM signal." In [0090] in McFarland and FIG. 14, the spectral filter 1411 filters spectral components in the light from the library 1401 and has nothing to do with the recited spatial filter in Claim 1.

Therefore, the combination contended in the Final Office Action fails to disclose each feature in Claim 1 as required under 35 USC 103(a). As such, Claim 1 is patentable.

With respect to Claim 2, the Final Office Action cites Sandstrom to show the following features in Claim 2: moving the microarray in the DFWM system to measure DFWM signals for different areas and different DNA cells, "the microarray has a blank area between two adjacent DNA cells," and "scanning the blank area through the DFWM system to measure a signal; and using the measured signal in the blank area to determine a level of hybridization and washing in preparing the DNA cells and background optical noise." This contention is respectfully traversed.

More specifically, the cited sections in Sanstrom disclose probe sites and reference sites as shown in FIG. 6. This disclosure of Sanstrom, however, fails to show "the microarray has a blank area between two adjacent DNA cells," and "scanning the blank area through the DFWM system to measure a signal; and using the measured signal in the blank area to determine a level of hybridization and washing in preparing the DNA cells and background optical noise" in Claim 2.

Therefore, Claim 2 is patentable under 35 USC 103(a).

Claim 1 recites a substrate material shaped to include curved surfaces to define a shape of an optical resonator which supports at least one whispering gallery mode.

The Final Office Action cites 0048, 0086-0088 in McFarland to show DFWM detection of different parts within one cell. The cited portions, however, do not support the contention made by the Patent Office. Therefore, the rejection to Claim 3 must be withdrawn.

Claims 5-7 and 17-22 are patentable based on the above arguments.

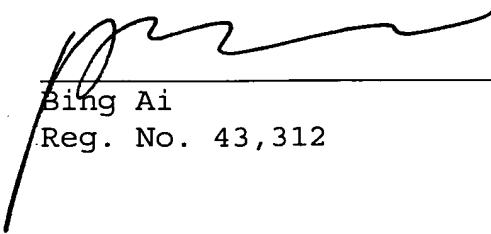
The foregoing comments made with respect to the positions taken by the Examiner are not to be construed as acquiescence with other positions of the Examiner that have not been explicitly contested. Accordingly, the above arguments for patentability of a claim should not be construed as implying that there are not other valid reasons for patentability of that claim or other claims.

A notice of appeal is concurrently filed with this response to appeal to the Board of Patent Appeals and Interferences from the Final Office Action.

This response is filed timely with an extension of time for 3 months. Please apply any credits or additional charges to deposit account 06-1050.

Respectfully submitted,

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